

From: [R6HarveyENVL](#)
To: [R6HarveyInfo](#)
Subject: FW: Endosulfan methods FW: Pesticide chemists
Date: Wednesday, September 13, 2017 3:43:37 PM

From: Charters, David
Sent: Wednesday, September 13, 2017 3:43:35 PM (UTC-06:00) Central Time (US & Canada)
To: Koglin, Eric; R6HarveyENVL
Cc: Sayles, Gregory; Smith, Kelly
Subject: RE: Endosulfan methods FW: Pesticide chemists

Thank you

From: Koglin, Eric
Sent: Wednesday, September 13, 2017 4:33 PM
To: Charters, David <Charters.DavidW@epa.gov>
Cc: Sayles, Gregory <Sayles.Gregory@epa.gov>; Smith, Kelly <Smith.Kelly@epa.gov>
Subject: Endosulfan methods FW: Pesticide chemists

David

Hopefully this will help with the analytical side of the Endosulfan equation. I ran your QA/QC concern by one of our chemists. Here's her response regarding analytical methods for the detection of Endosulfan I, Endosulfan II, and endosulfan sulfate.

Listed below is a table of acceptable methods that was part of HS document for methods, Appendix A, for endosulfan. 8081 isn't listed. However, Method 8270E (January 2016) is listed and 8270E is a newer method than 8081b (Feb 2007).

Method 8081B is a GC/ECD method – not as accurate as say GC/MS (Method 8270E). There are things that whoever is reviewing the data needs to be aware of when looking at the results.

For example, what type of GC column was used a DB-5 or a DB-1701? There are co-elution problems with other pesticides and Endosulfan I, as well as with Endosulfan II.

If it were I, I would be leery of Method 8081B. Method 8270E is the much better, more robust and definitive method.

Analyte	Determinative Technique	Method	Solid Phase Extraction Technique/ Sample Prep	Oily Solid Extraction Technique/ Sample Prep	Aqueous Phase Extraction Technique/ Sample Prep	Liquid Phase Extraction Technique/ Sample Prep	Gas Phase Extraction Technique/ Sample Prep
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Endosulfan I	GC/MS	8270 (SW 846)	3545 (SW 846)	3580 (SW 846)	3520 (SW 846)	3520 (SW 846)	3542 (SW 846)
Endosulfan II	GC/MS	8270	3545 (SW	3580 (SW	3520 (SW	3520 (SW	3542 (SW

		(SW 846)	846)	846)	846)	846)	846)
Endosulfan sulfate	GC/MS	8270 (SW 846)	3545 (SW 846)	3580 (SW 846)	3520 (SW 846)	3520 (SW 846)	3542 (SW 846)

I have asked a different group of folks to look at the removal number to determine whether it represents one of the compounds or if it's additive of the three. I did find that the State of Florida adds up all three compounds to assess Endosulfan as a whole.

Anyway, here's a little to get you started and I'll be back in touch when I have more. If you have more pointed questions, please send them along by email or call me.

Eric

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